



# BADGER STATE Smoke Signals



Serving Amateur Radio in Wisconsin

Published Monthly Since 1969

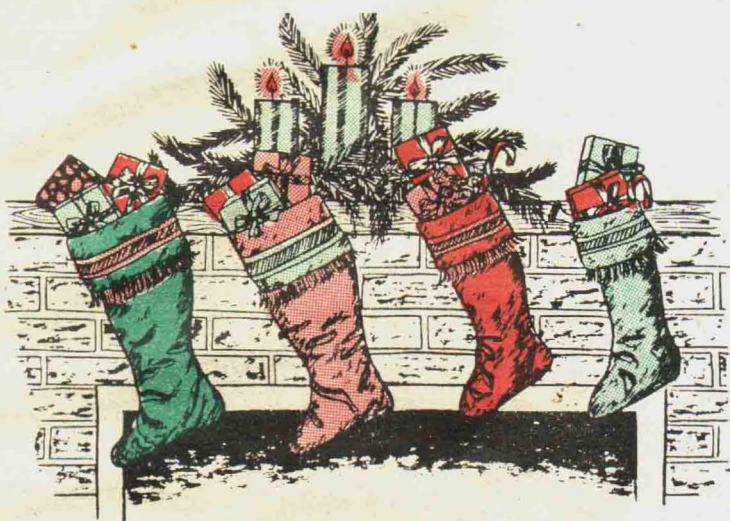
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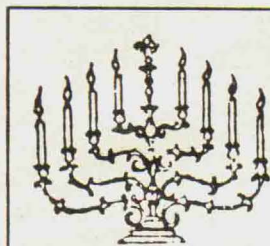
Vol. 18 No. 12 - 216th Consecutive Monthly Issue - Baraboo, Wisconsin - December 1987

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**Merry  
Christmas**

**and a Great '88!**



**CHANUKAH  
GREETINGS**

## Let Me Forever Honor You

By Richard R. Regent,  
K9GDF  
Wisconsin Section Manager  
5003 South 26th Street  
Milwaukee WI 53221

My emotions became mixed upon overhearing that I was going to be sent away from ARRL Headquarters. It would be sad to say goodbye to my League friends, those certificates, medallions and awards who always treated me with respect and honor. Yet, I was anxious to continue toward my goals and meet my new owner. Being a prestigious Hiram Percy Maxim Memorial Award is hard work.

They set my destiny, sealed me in a clear plastic bag, put it into a tightly fitting carton and protected it in another cardboard box filled with squeaky little packing chips. Those styrofoam chatterbugs kept me awake during most of my trip from Newington to Milwaukee.

Maybe I was dreaming. Suddenly I awoke and saw Richard Regent, K9GDF, the Wisconsin ARRL Section Manager. My spirits rose as he carefully unwrapped me in a bright sunlit room and looked at my inscription, "...to Scott L. Young, N9FZS..." he assuredly read. We smiled at each other.

In a few days it was November 1, 1987, an early Sunday morning, when Rich repacked me and we went for a drive in his car. Hours later, he helped me out of the carton and bag, then clutched me tightly; we were at the Central Division Convention in St. Charles, Illinois. Seconds later, we were on the stage, where Mr. Ed Metzger, W9PRN, Central Division Director, introduced Richard to the audience.

(Please turn to page 9)



'Twas the night before Christmas  
And all through the shack,  
Not an Ampere was flowing,  
The tubes were all black.

The line cords were pulled  
From the sockets with care;  
On a night such as this  
DX would be rare.

The XYL in her pincurls  
And me in PJs  
Had just hit the sack  
After hard shopping days.

### Santa is a Ham!

When up in the shack  
There arose such a chatter  
I sprang from my bed  
To check on the matter.

As I entered the door  
I was filled with surprise,  
As the junior op  
Was on seventy-five.

— By Harv Hamer, K9YHO, 1970 —

And I watched with awe  
The call that he wrote;  
I knew that the contact  
Was something remote.

N-P-1-S-C  
Was a call I'd not heard  
But my lad was informed  
And gave me the word.

It's Old Man Claus  
From his Pole operating site,  
And he wishes all on the air  
66 and good night!

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The opinions expressed in editorials, guest editorials, columns, articles, and letters are the opinions of the authors only, and do not, unless otherwise stated, express or imply agreement or endorsement by Badger State Smoke Signals, or any other organization.

## Swapfests and other Social Events

January 9, 1988. The 16th annual Midwinter Swapfest, sponsored by the West Allis Radio Amateur Club, will be held at the Waukesha Exposition Center Forum, Hwys F & FT, Waukesha, WI. Food and refreshments served by WARAC at low, low prices. Free coffee and donuts. Amateur exams administered by the Badger Examiners. (Admission Ticket NOT required to take exams.) Admission \$2.00 in advance or \$3.00 at the door. Reserved tables, \$3.00. Non-reserved tables, \$4.00. (first come - first served) Electrical outlets (if available) \$5.00. Contact: (with sase) WARAC Swapfest, P.O. Box 1072, Milwaukee, WI 53201. See ad elsewhere this issue for further information and map.

The Wisconsin QSO Party will be held March 20, 1988. Watch Badger State Smoke Signals for further details.

The Tenth Annual Ozaukee Radio Club Swapfest will be held May 7, 1988.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas.

Send information on your event to Kenneth A. Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages, and/or we can include your flyers. For information on rates and requirements for our advertising pages, and/or for including flyers, please contact K9ZZ or K9EN.

## Club Meetings

**BADGER AMATEUR RADIO SOCIETY**  
(W9YT - UNIVERSITY OF WISCONSIN - MADISON)  
Monthly while school in session - 2nd Wednesday - 7:30 p.m. - B-314, Electrical Engineering Building.

**CENTRAL WISCONSIN RADIO AMATEURS, LTD.**  
(STEVENS POINT)  
Second Wednesday. Annual Banquet at the Blue Top on January 13, 1988.

**EAU CLAIRE AMATEUR RADIO CLUB**  
2nd Tuesday - 7:30 p.m. - Parks and Recreation Bldg., Oxford and 1st Streets, Eau Claire. Hams, guests welcome. Travelers welcome on wide area club repeater K9UXP, 146.31/91.

**FOUR LAKES AMATEUR RADIO CLUB (MADISON WI)**  
First and third Tuesdays - 7:30 p.m. - Red Cross Bldg., 4860 Sheboygan Ave.

**FOX CITIES AMATEUR RADIO CLUB**  
Third Monday - 7:00 p.m. - Roosevelt Jr. High School, 318 E. Brewster St., Appleton. Info: (414) 735-6294. Winter Banquet, January 23, 1988. Contact KA9MPP.

**GREEN BAY MIKE AND KEY CLUB**  
Second Thursday - Red Cross Bldg., corner Danz and Deckner, Green Bay.

**GREEN FOX AMATEUR RADIO CLUB**  
Third Monday - 7:30 p.m. - Green Lake Town Hall, int. of county hwy's. K and N.

**KETTLE MORaine RADIO AMATEURS**  
Second Friday.

**MADISON AREA REPEATER ASSOCIATION (MARA)**  
Annual Christmas dinner will be held Monday November 30, 1987 at the Heritage House in Madison. Contact Clyde, W9HSY, or MARA, P.O. Box 3403, Madison, WI 53716

**MANITOWOC COUNTY RADIO AMATEURS**  
First Wednesday - 7:00 p.m. - City Hall, 817 Franklin St., Manitowoc.  
Second Wednesday - Red Cross Building, 1816 Washington St., Manitowoc.

**MENOMONEE FALLS AMATEUR RADIO CLUB**  
Last Tuesday - Doors open 7:30 p.m., meeting begins 8:00 p.m. - Security Savings and Loan, Menomonee Falls. Amateurs and guests welcome.

**MILWAUKEE RADIO AMATEURS CLUB**  
Second Thursday - Wauwatosa Savings and Loan, 7500 W. State St. The MRAC annual Christmas dinner party is scheduled for Wednesday, December 9, 1987. SASE to MRAC, N50 W16328 Pin Oak Ct., Menomonee Falls, WI 53051.

**OZAUKEE RADIO CLUB**  
Second Wednesday - 7:30 p.m. - Saukville Community Center.

**RIVERLAND AMATEUR RADIO CLUB**  
First Tuesday - 7:30 p.m. - Onalaska Community Center, Onalaska WI.

**ROCK RIVER RADIO CLUB**  
First Tuesday - 8:00 p.m. - Dodge County Sheriff's Dep't, 141 N. Main, Juneau WI.

**SHEBOYGAN COUNTY AMATEUR RADIO CLUB**  
Second Tuesday - 7:00 p.m. - Sheboygan Red Cross/Boy Scout Bldg., 2032 Erie Ave.

**SOUTH MILWAUKEE AMATEUR RADIO CLUB**  
First Wednesday - Legion Post 434, Shepard Ave., Oak Creek WI. Auctions in March and October.

**TRI-COUNTY AMATEUR RADIO CLUB**  
Meetings are held at 7:00 p.m., the second Sunday of each month at the Trinity Lutheran Church, 314 Barrie, Fort Atkinson, WI. Sunday, December 13, 1987, will be the Christmas Dinner & meeting at Fairview in Jefferson, WI

**WEST ALLIS RADIO AMATEURS CLUB**  
Second Tuesday - 8:00 p.m. - St. Francis Savings, 9330 W. Greenfield Ave.

**WISCONSIN VALLEY RADIO ASSOCIATION (WAUSAU)**  
First Tuesday - 7:30 p.m. - Location varies; info on 146.04/64, Wausau.

**YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)**  
Days rotate: Thu., Dec. 10, 1987. 1988 meeting dates: Mon., Jan. 18, Tue., Feb. 16, Wed., Mar. 16, Thu., Apr. 14, Mon., May 16, Tue., Jun. 14, Wed., Jul. 13, Thu., Aug 11, Mon., Sep. 19, Tue., Oct. 11, Wed., Nov. 16, Thu., Dec. 15. Monday meetings in room 10 of the Baraboo Civic Center; all others in room 25. Meetings start 7:30 p.m.

Let Badger State Smoke Signals know your club's meeting dates, and we will let our readers know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other interested in making an interclub visit.

Interesting Antenna Source.....

While visiting a Radio Shack the other day, I noticed they have a new scanner antenna on sale, a 25 --> 1300 MHz discone. This antenna will handle up to 200 watts at a low SWR anywhere within this spectrum, making it useful in the 29, 52, 146, 222, 440, 902, and 1260 MHz bands.. interesting..

73, Doug - W9WI

# The TEST POINT



The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area.

December 5, 1987	Stevens Point, WI
December 5, 1987	Madison, WI
December 12, 1987	Milwaukee, WI (MRAC)
December 12, 1987	Appleton, WI
December 19, 1987	Milwaukee, WI (BE)
December 19, 1987	Rhineland, WI
December 19, 1987	St. Paul, MN
January 9, 1988	Milwaukee, WI (MRAC)
January 9, 1988	Waukesha, WI (BE)
January 16, 1988	Eau Claire, WI
January 18, 1988	Madison, WI
January 23, 1988	Ft. Meyers, FL
February 20, 1988	Milwaukee, WI (BE)
February 27, 1988	Madison, WI
March 19, 1988	Menomonie, WI
March 19, 1988	Ft. Meyers, FL
March 27, 1988	Jefferson, WI (BE)
April 9, 1988	Madison, WI
April 16, 1988	Milwaukee, WI (BE)
April 16, 1988	Eau Claire, WI
May 7, 1988	Cedarburg, WI (BE)
June 18, 1988	Menomonie, WI
July 8, 1988	Eau Claire, WI
July 9, 1988	Eau Claire, WI
October 15, 1988	Eau Claire, WI
November 12, 1988	Menomonie, WI
March 18, 1989	Menomonie, WI
June 17, 1989	Menomonie, WI
November 11, 1989	Menomonie, WI
Monthly, First Sat.	Racine, WI
Monthly, Third Sat.	Loves Park, IL

## GENERAL RULES FOR MOST EXAMINATIONS:

Most examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor to find out if they allow walk-ins.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 22¢ SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$4.35 payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. A copy of your license must be attached to your FCC form 610.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

### APPLETON, WI

Saturday, December 12, 1987, 9 a.m.

Roosevelt Junior High School, 318 E. Brewster Street, Appleton. Walk-ins welcome; walk-ins should arrive at 8:30 a.m. to complete Form 610 and register; 610 forms available at test site. You MUST bring photo ID, photocopy of your current license, AND your original Ham license. Talkin 145.15 or 147.76 repeaters. Exams sponsored by Fox Cities ARC. For more info: Larry

Siebers, KD9IA, 7077 Weyers Rd., Freedom WI 54130 (414-788-3823).

### FOUR LAKES ARC (ARRL/VEC)

Madison, WI

December 5, 1987, January 17, 1988, February 27, 1988 and April 9, 1988

Fire Station #2, at 421 Grand Canyon Dr. They start at 8:30 a.m. sharp.

### MILWAUKEE METRO AREA TEST TEAM - MRAC/VEC (MRAC)

December 12, 1987 - January 9, 1988

Tests are given at 9:00 AM in room 256, Wauwatosa East High School at 74th and Milwaukee Ave. Use the east (74th St.) entrance.

Bring your original license and 3 good photocopies, a pen, and \$4.35 for the exam fee. Walk-ins accommodated if time permits.

Register in advance on a Postal Service 14 cent postcard; print the grade of license you are applying for, your name, address, and telephone number. Send to: The Milwaukee Radio Amateurs' Club, Inc., N50 W16328 Pin Oak Court, Menomonee Falls WI 53051.

### BADGER EXAMINERS (BE) - MILWAUKEE

December 19, 1987

1988 dates:

January 9 (at West Allis RAC Swapfest in Waukesha - 9:30 a.m.)

February 20

March 27 (at Jefferson Swapfest - 10:30 a.m.)

April 16

May 7 (at Ozaukee Club Swapfest in Cedarburg - 9:00 a.m.)

Unless otherwise noted, examinations are administered from 1 to 4 p.m. at St. Nicholas Parish, 5353 N. Green Bay Ave. (2 1/2 blocks south of Silver Spring), Milwaukee. Bring your original license, a good photocopy of it, and a second form of ID. Walk-ins are welcome. Technician license holders must bring proof of testing prior to March 21, 1987 to upgrade to General with code test only. Advance registration: send post card with your name, test or tests you wish to take, date you wish to be tested, your call sign, address and phone number to Badger Examiners, Mickey Dolgin, KB9G, 507 E. Spooner Rd., Fox Point WI 53217 (414) 351-5311.

### RHINELANDER, WI - NICOLET COLLEGE

Science Center, Fireside Room - (DeVry VEC)

Contact: Len Bauman, K9RMN, 1312 Dorothy St., Rhineland, WI 54501, (715) 369-3296

### STEVENS POINT, WI - BLUE TOP INN

Contact: Joe Larson, N9JW, 644 Portage St., Stevens Point, WI 54481, (715) 344-1182

### EAU CLAIRE, WI - W5YI/VEC

9:00 A.M. to Noon, except July 8, 1988, 6:00 P.M. to 9:00 P.M. Exams are given at the University of Wisconsin Facilities Management Building in Eau Claire, except that the July exams are given in conjunction with the Eau Claire Amateur Radio Hamfest. There is no pre-registration requirement. Contact: Carl Searing, W9NW, 1129 McKinley Road, Eau Claire, WI 54703. (715) 843-1303.

### MENOMONIE, WI

Credit Union Office Building, Conference

Room, lower level, 444 S. Broadway, Menomonie, WI. Contact: Dr. Thomas W. King, KD9TT, c/o office, 444 S. Broadway, Suite 1, Menomonie, WI 54751. (715) 235-4747 (O), 235-5757 (H).

### RACINE, WISCONSIN - ARRL/VEC

First Saturday of each month except during summer and the Christmas holidays.

Exams are given at the Red Cross Building, 4521 Taylor Ave., Racine, WI. Walk-ins are permitted.

Send pre-registration to: William R. Firchol, Jr., N9DMP, 1912 27th Street, Kenosha WI 53140.

### Third Saturday of every month.

Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban Library on North Second Street in Loves Park, IL.

Contact: Gene Melton, AK9N, 2901 Billie Rd., Rockford, IL 61109, (815) 874-6867

### FORT MEYERS, FLORIDA (ARRL/VEC)

January 23 and March 19, 1988

Combine a Florida vacation with an upgrade exam - the best of two worlds! Contact Bob Strathy, WV4F, 5428 Brandy Circle SW, Fort Meyers FL 33919. (813) 481-4880.

### ST. PAUL, MN

Contact: Jay Bellows, KØQBE  
997 Portland Ave.  
St. Paul, MN 55104  
(612) 222-7253

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules.

Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN or K9ZZ at the address shown on page 2.

### AMATEUR RADIO CALL SIGNS (From the ARRL LETTER)

The following are the call sign assignments as of October 1, 1987

	Group A Extra	Group B Advanced	Group C Tech/Gen	Group D Novice
0	WBOP	KEORA	NOIOE	KBOBFX
1	NN1G	KC1GK	N1FFS	KA1RBI
2	NZ2U	KE2CR	N2HPF	KB2ELB
3	NK3P	KD3ER	N3FUB	KA3SFP
4	AB4DU	KK4RT	N4RGZ	KC4BWE
5	AA5SU	KG5DZ	N5LMX	KB5EKO
6	AA6EY	KI6ZI	N6QLQ	KB6UGY
7	WF7Z	KF7DZ	N7JYC	KB7CYQ
8	NY8Q	KE8OA	N8IVJ	KB8DGH
9	NU9W	KE9GR	N9GXS	KA9ZMJ
HI	**	AH6IM	NH6LY	WH6BUU
AL	**	AL7JG	NL7LH	WL7BPW
VI	KP2T	KP2BK	NP2CF	WP2AFS
PR	**	KP4OK	WP4HA	WP4ROW

\*\* All group A call signs have been assigned.

The best part of a German restaurant is the wurst.

# Yellow Thunder Amateur Radio Club

**K9ODK  
WB9FDZ**

The next meeting of the Yellow Thunder Amateur Radio Club will be held in room 15 of the Baraboo Civic Center on Thursday, December 10, 1987. This meeting will be the Annual Meeting for the election of officers. This is also our Christmas party so bring a small (\$1.00 - 2.00) gift to exchange.

The meeting schedule for 1988 is in the Meetings column of this issue. Be sure to mark your calendar with these dates.

The November meeting of the Y.T.A.R.C. was called to order at 7:35 p.m. with the following persons in attendance:

Steve Schwoegler	WB9RNL	Wisconsin Dells
Art Kleefisch	W9WSS	Baraboo
Harry Westlund	K9EHJ	Baraboo
Jim Decker	WB9UQT	Baraboo
Duane Grotophorst	KA9HKL	Loganville
Bill Klinkner		Sauk City
Jim Romelfanger	K9ZZ	Baraboo
Peter Sweeney	WD9JIB	Reedsburg
Harry Mayland	K9FFT	Baraboo
Ken Ebnetter	K9EN	Portage
Ken Johnson	K9DZG	Mazomanie
Tim Stieve	Guest - Sauk County	Emergency Government

The President asked that the formal business part of the meeting be as short as possible so our guest this evening, Mr. Tim Stieve, Sauk County Emergency Government Deputy Director, could have the most time available to discuss our joint roles in Emergency Government communications.

By unanimous approval, the minutes of the last meeting as published in the B.S.S.S. were approved.

The treasurer then reported an operating balance of \$182.95.

The secretary passed out the latest issue of the A.R.R.L. Field Forum bulletin for members to read.

Since next month's meeting (December) is election of officers, the chair called for nominations and the following was submitted:

President: Steve Schwoegler, WB9RNL  
Vice-President: Duane Grotophorst, KA9HKL  
Secretary: Harry Westlund, K9EHJ  
Treasurer: James Decker, WB9UQT

The Buck Nite drawing was won by Bob Johnson (WB9EIW), who was not present. Next month's drawing will be \$8.00. (I think that's correct.)

The president then recessed formal business of the meeting at 7:55 p.m., and introduced our guest, Mr. Tim Stieve.

A lively open discussion then followed.

There were many very interesting ideas and suggestions put forth. A few of the major items discussed were:

1. Possible local repeater
2. List of available equipment
  - A. Hand-held
  - B. Mobile
  - C. Fixed portable
3. Available manpower (not limited to club members)
4. Procedure

A final agreement was reached to the effect that in the very near future Mr. Stieve and some club members would get together and draft a plan of procedure and availability. This is to develop into a local emergency network.

Meeting adjourned at 10:08.

Respectfully submitted:  
Harry Westlund, K9EHJ, Secretary

## Birthdaze

Jim Romelfanger	K9ZZ	December 6
Duane Grotophorst	KA9HKL	December 31
Art Kleefisch	W9WSS	December 20

## Sentence Sermon

It is Christ in the heart that puts Christmas in the air.

Universal Traffic Queries (cont. from page 13)

stations to conduct regular liaison with other nets to insure the flow of traffic to and from places beyond the net's coverage area. The net manager also has the function of keeping net records and rosters, appointing Net Control Stations and, in the case of ARRL nets, of reporting monthly to the Section Traffic Manager.

### WHAT DOES THE SECTION TRAFFIC MANAGER DO?

Well, this individual is appointed by the Section Manager to oversee all NTS operations within a Section. The STM's responsibility is to coordinate activities of all nets under his/her jurisdiction so that routings within the section and connections with other nets to effect orderly and efficient traffic flow are maintained. The STM also coordinates with the SECTION EMERGENCY COORDINATOR so that traffic nets and emergency nets in the section present a united public service front.

The STM also tabulates net statistics from all the nets and reports monthly to ARRL headquarters of all traffic activity within the section.

Another function is to appoint Net Managers and Official Relay Station appointments.

### WHAT IS AN OFFICIAL RELAY STATION AND HOW CAN I BECOME ONE?

As pointed out earlier, all licensed amateurs are encouraged to participate in the handling of third-party traffic. The ORS appointment is open to all classes of license from Novice to Extra. It also applies equally to all modes of operation in all parts of the spectrum.



Bill and Ann Klinkner (no calls yet) at a recent YTARC club meeting.

The potential value of the operator who has traffic know-how to his country and community is enhanced by his ability and the readiness of his station to function in the community interest in case of emergency. Traffic awareness and experience are often the signs by which mature Amateurs may be distinguished.

The appointed ORS may confine activities to one mode or one part of the spectrum if so desired. There is no versatility requirements, although versatility does indeed make it possible for anyone to perform a more complete public service.

Here are the basic requirements for the Official Relay Station appointment:

1. Full ARRL membership
2. Any class of license
3. Transmission quality, by whatever mode, must be of highest quality, both technically and operationally.
4. All ORS are expected to follow standard ARRL operating practice. (message form, ending signals, abbreviations, courtesy, etc.)
5. Regular participation in traffic activities, either free-lance or ARRL-sponsored.
6. Handle all record communications speedily and reliably and set the example in efficient operating procedures.
7. Report monthly to the STM, including a breakdown of traffic handled during the past calendar month.

So, if you are interested in such an appointment, and feel that you meet the qualifications, please contact your STM (K9UTQ) and he will see that you get issued an ORS certificate.

It might be good to mention at this point, that to maintain any ARRL field appointment, requires monthly reporting to the leadership official that made the appointment. Failure to do so could lead to cancellation of the appointment.

Next month, I will explain how to check into a traffic net and what you do once you're in.

Till then, Happy Thanksgiving and CU on the nets.

73,  
Gene Santoski, K9UTQ  
SECTION TRAFFIC MGR





### WISCONSIN CHAPTER 55

Lester A. Peterson, W9YCV  
9741 W. Howard Avenue  
Greenfield, WI 53228

The Fall meeting was held at the Liberty Club in Kimberly, WI, on Saturday, October 3rd. One hundred thirteen members, spouses, guests and visitors took advantage of this beautiful Fall day to attend. The frosty morning chill was soon dispelled once the warm, friendly "eyeball QSOs" got started during the registration/attitude adjustment hour.

Following the invocation and enjoyable sitdown dinner, Chairman La Blonde got the general meeting going. He asked the group to observe a moment of silence for our recent silent key, Sid Pokorny, W5UAU (ex-W9NRP), and the others preceeding him. Next he read the following new members list:

Albert Skwiercz, W9QHN  
Gordon Lauder, W9PVD  
Laurel Anderson, W9BTY  
Arden Ebert, WØWTE  
Robert Shady, KB9XR  
Charles Knotek, W9GKM  
Rodney Synnes, W9GKZ  
George Loudon, N9CCI  
Richard Low, KØJYB

Those introduced who are just joining the chapter were: Allen Mallek (K9WVM), Joseph Binder (W9VLH), and John Hargraves (W9MFS). Guests included Paul Lesching (N9EZK) and Ray Wendt (W9HRD).

QCWA Golden Anniversary certificates were presented to:

Jeff Vore, W9QBJ  
Fred Linn, W9NZF  
Travis Baird, W9VQD.

Travis also received a 50 year continuously licensed certificate.

Our A.R.R.L. Section Manager (and chapter treasurer) presented A.R.R.L. 50 year continuous League membership plaques to:

John Scarvaci, W9GIL, and  
William Littlewood, W9HE.

After numerous door prizes were awarded, the ladies departed to another area for their White Elephant/Craft auction, conducted by Gordy Fedder, W9YFW, ably assisted by Mary Morgan and Helen Roehner. Proceeds from the auction will be used for future ladies programs and activities.

The chapter business meeting was convened by Chairman La Blonde. In addition to the usual business meeting matters, three directors were elected. They were:

Rich Regent, K9GDF, re-elected  
Harold Ferguson, W9IEM, re-elected  
Ed Seruga, N9DNM, newly elected.

A round of applause was given the secretary and treasurer in appreciation for their work. Bill Haase, W9FPA, gave the audit committee's report and commended the treasurer on his excellent computerized financial records. Reports were given on our hospitalized and recently hospitalized members. Travis, W9VQD, reported on his contacts with QCWA Hq. personnel and plans to attend the National QCWA board meeting and convention. A very nice informative letter from Mrs. Sid Pokorny was read by the chairman. It was announced that Doug Kleeman, KA9LWN, from Shawano, was a recipient of a scholarship from the QCWA Memorial Scholarship Fund. The following resolution introduced by the sec-

retary was unanimously approved by the members present with a big round of applause:

Be it resolved that Wisconsin Chapter 55 QCWA does this date gratefully acknowledge the many times that you, Allie Geiersbach (W9FJE), have performed as net control of the Sunday morning net this past club year. We take this opportunity to express our sincerest thanks for a job well done.

During the business meeting recess, the board met and the incumbent chapter officers were re-elected. It was decided that board members in the Milwaukee area would get together and work out the details on the dues proposal for certain older members. A Fall 1988 meeting site of Wau-paca was tentatively selected and Fergie, W9IEM, and Charlie, W9CUW, as the committee to make arrangements. On the matter of door prizes, the board agreed to let Rich resume that responsibility to avoid duplication of effort.

The business meeting reconvened and the chairman announced that the current officers were re-elected. It was also announced that our member Dick Ranson, W9PH, is now a resident of Methodist Manor, Apt. D-10, 3023 So. 84th St., West Allis, WI 53227. The meeting was adjourned and an auction of "donated goodies" followed.

The chapter thanks Ray Brehm, W9AJH, for his contribution of a new Electro Voice microphone as a door prize.

### MARK YOUR CALENDARS

The spring meeting will be at the "Fish Shanty" in Port Washington on Saturday, June 4th.

### 150 YEARS OF AMATEUR RADIO

Shown here, left to right, are Fred Linn (W9NZF), Travis Baird (W9VQD), and Jeff Vore (W9QBJ), all of whom received their QCWA Golden Anniversary and 50 year continuously licensed certificates during the Wisconsin Chapter 55 Fall 1987 meeting.

Photo by Les  
Peterson, W9YCV



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### ARRL VEC TO CHARGE \$4.55 FOR EXAMS

Effective January 1, 1988, the maximum allowable fee for an amateur exam administered by a VEC will be \$4.56. This increase is based upon a 4.3% rise in the Department of Labor Consumer Price Index between September 1986 and September 1987. The ARRL/VEC will charge \$4.55, effective January 1. (From The ARRL Letter)

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The November meeting of the Riverland Amateur Radio Club was called to order by President Gary, NI9V, at 7:40 p.m. The minutes of the October meeting were approved as published in the BSSS. The Treasurer's report was approved as read.

### 37/97 Report

None.

### Jacket Report

None.

### Christmas Party

The annual RARC Christmas Party will be held at Nob Hill Supper Club on Saturday evening, January 16. Contact Chairman Bill Wood, WB9VYI, for reservations.

### Old Business

None.

### New Business

A lengthy discussion was held regarding a notice received by one of our members to remove his towers. A complaint was apparently filed to the La Crosse County Board by an irate citizen. No indication was given as to the reason for the complaint. This could mean that the county of La Crosse could order any or all amateurs to remove their towers. A letter was sent to the La Crosse County Board by President Gary informing them of our concern. The amateur involved obtained information from the ARRL regarding PRB-1 and case histories involving similar situations in which an amateur won his case. The information was given to an attorney who was hired by the party involved. No permits have ever been issued for towers in La Crosse County. It is interesting to note the fact that certain structures are exempt, such as T.V. towers, silos, church steeples, and so forth. Amateur Radio towers are not included in this particular ordinance (17-12 Sec. 2). Our goal will be to have Amateur Radio towers included in the list of exemptions for the purpose of clarity. A letter will be sent to the county board informing them of the various com-

munication activities provided by the Amateur Radio operators.

Due to the fact that no citation has been issued to the party involved, it would be well to let the sleeping dog lie and see what happens rather than stirring up a lot of trouble.

A Zoning Ordinance Committee was formed, consisting of Gary, NI9V, John Burcum, K9OAH and Bill Wood, WB9VYI. A file will be made to include PRB-1 information and cases involving hams and towers.

### RiverLAN Digi

An announcement was made by Dick, KØJYB, regarding a new digi on 145.09 as a LOCAL AREA NETWORK (LAN). Any contributions to the project would be appreciated.

There was an objection to the use of the title RiverLan because of the similarity to Riverland as in Riverland Amateur Radio Club.

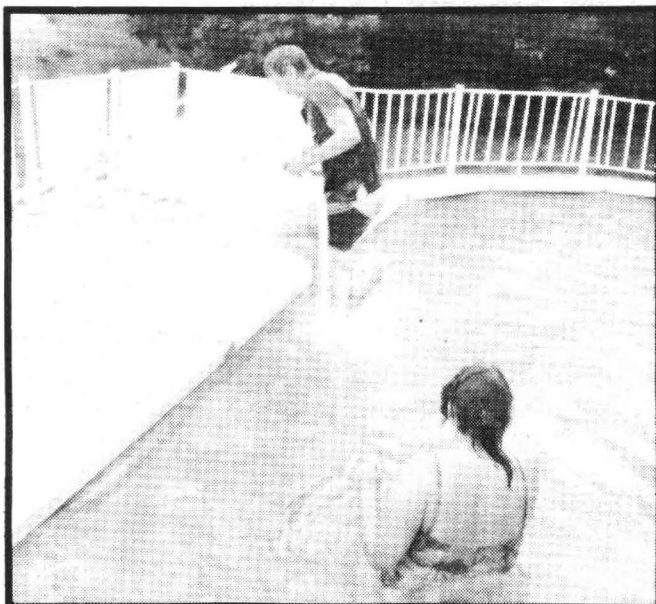
Submitted by

Dick, KØJYB, RARC Sec.

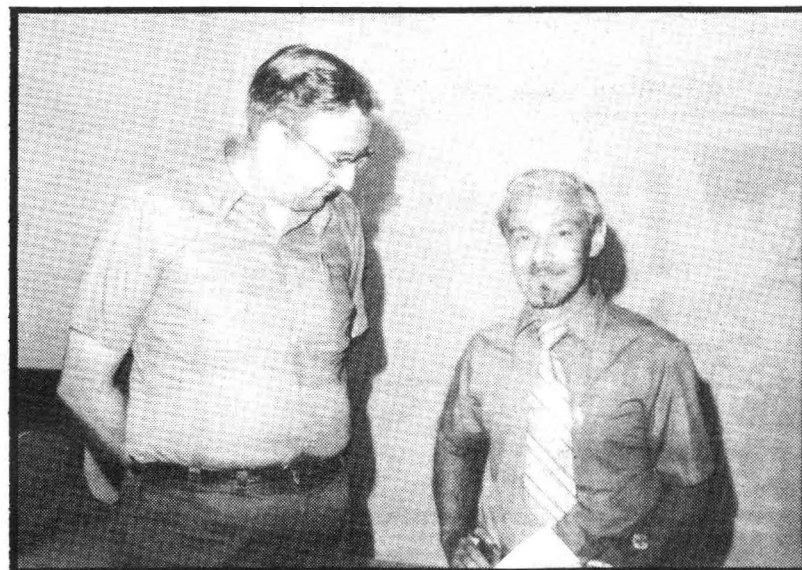
P.S. Special thanks to Karl, W4ST, for the liaison work regarding antenna liability insurance and obtaining a \$15 rebate.

## The End is in Sight

Clyde Downing, W9HSY, President of the Madison Area Repeater Association, gets thrown in the swimming pool every year at MARA's picnic. However, when he emerged from the pool, Theresa, N9DIA, foreground, briefly saw the moon rise in an unexpected manner, indeed. Clyde says that if this happens to you, and you are teased about it, just turn the other cheek (or buy a pair of trunks with better elastic).



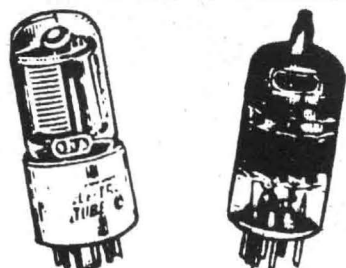
## From the Scrapbook



In this semi-historic photo, taken in 1971, are Ken Ebner, K9GSC (now K9EN), at left, and Bernie Tower, K9ZPP (now AI6Q). Ken, who is Chairman of the staff of Badger State Smoke Signals, was Section Communications Manager for the Wisconsin Section of the American Radio Relay League. Bernie served a stint as Section Emergency Coordinator, and lived in Milwaukee. This photo was taken during a Navy-Marine Corps MARS conference in Madison. The photographer was K9PKQ (now K9ZZ).

If you have some semi-historic (or just plain historic) photos which might interest your fellow Radio Amateurs, particularly of (but not limited to) Wisconsin or area Hams, we'd be happy to consider publishing them. We will make every effort to return them to you. Please submit photos to the editor; the address is on page 2.

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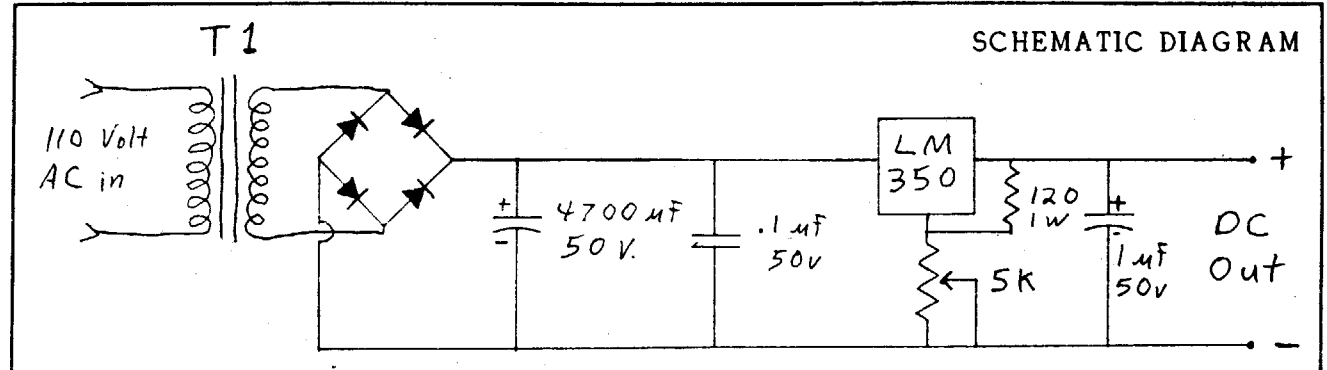
# John's Junk Box

By John W. Frank, WB9TQG  
P.O. Box 5113  
Madison WI 53705

## A NO FRILLS POWER SUPPLY

Here's a circuit I have found very useful in the shack and on the workbench. Although some power supplies incorporate switching regulators, crowbar circuits for overvoltage protection, or adjustable voltage and current limiting, this is a very basic power supply circuit.

Transformer T1 determines the maximum voltage available from the supply. I used a transformer with an 18 volt secondary because that's what I had in my junk-box. If you need more than 18 volts from your supply, choose a transformer with a higher secondary voltage, but bear in mind that the regulator chip shown in the schematic has a maximum input voltage of around 33 volts and a maximum load current of 3 amps. The bridge rectifier makes DC out of AC and the 4700 microfarad capacitor smooths out the DC. Please note the LM350 regulator chip must be mounted on a large heat sink if you want to draw 3 amps through it. Also note that the heat



sink must be insulated from the chassis. The 5K pot is used to adjust the output voltage.

If you can't find an LM350 regulator chip, feel free to use an ECG970. It's a direct replacement. One nice thing about these chips is that they incorporate built in thermal limiting. If you use too small a heat sink, the chip won't overheat to the point where it destroys itself. Instead, it will overheat to a point where it shuts down. Then, after it cools off, it will begin to work again. This is the chip's way of telling you it wants less load current or a larger heat sink.

To insure stable operation of the regulator chip, the .1 uF capacitor should be installed at the chip's input pin, and the 1 uF capacitor should be installed at the chip's output pin. Neither capacitor should be any distance away from the chip. Voltage regulator chips have amplifiers aboard, which provide a good deal of gain. Also, without going into a great deal of detail as to the reasons, both capacitors should be tantalum types; the .1 uF capacitor can actually be as large as 2.2 uF; the 1 uF can actually be as large as 25 uF.

What sort of results can you expect

from such a simple regulator? My supply provides 0.83% regulation and has only 10 millivolts of ripple when the load current is 2 amps.

Although this no frills supply may not have the capacity to power some high current loads, it lends itself quite well to QRP rigs, some lower powered VHF rigs, and a variety of experiments on my workbench.

73 and Happy Homebrewing,

John, WB9TQG

Editor's note: Beginning next month, John's Junk Box will alternate with a new feature by WB9TQG: "Repeater Profiles". Repeater Profiles will feature different repeaters in Wisconsin, with technical information, special repeater features, and other data on some of the many excellent machines in the Badger State. Photos will be included. We are grateful to John for his many excellent contributions to this paper, and we ask that, if you feel so moved, you drop a note to John to comment on his writings. He'd be happy to hear from you, as would our other writers.

## HAM PLATES FOR TRUCKS, RVs: UPDATE

No legislative action is expected until January on the proposal to permit Amateur Radio call sign license plates on certain trucks and RVs. (See January 1987 BSSS.) Committee reports have all been favorable. Thanks WB9NYG/WC9AAG.

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## FCC Licensing Figures

The FCC has released its licensing figures for the end of September. Because the Federal fiscal year is October 1 - September 30, these are "year end" figures for the FCC. These figures show:

Extra Class	43,214
Advanced	98,147
General	114,428
Technician	91,633
Novice	82,779

This totals 430,201, compared to 421,082 for the 1986 fiscal year, a gain of 2.2%. This figure does not include thousands of amateurs whose licenses have expired but are still within the "grace" period to renew.

However, the big news from the FCC statistics is the number of new amateurs. In 1987 this number was 24,338, up nearly 40% from 17,848 in 1985, showing that Amateur Radio is attracting newcomers to replace inactive licensees who don't bother to renew their licenses.

Among the other interesting statistics from the FCC is that California continues to be the most populated state for radio amateurs, with some 59,644 within its borders. However, Florida overtakes New York for the number 2 spot, with 26,242 amateurs compared to New York's 26,001. Texas is next with 25,495 amateurs, and may overtake New York next year.

The two smallest states are Wyoming, with 938 amateurs, followed by Delaware, with 991.

The number of amateurs who change their call signs when they upgrade continues to increase slowly. In fiscal 1985, 42.6% changed their calls. In 1987, 46.4% did.

Another interesting statistic regarding call signs is that 54.7% of all amateurs hold 2 x 3 Novice call sign formats, but only 19.2% of all amateurs are Novices, showing that many amateurs upgrading continue to keep their original call sign.

(From The ARRL Letter)



# Correspondence

## From Our Readers

October 30, 1987

Editor, Badger State Smoke Signals  
Baraboo, WI

I wish to take this opportunity to thank the nets for giving me the Certificate of Merit for handling traffic. It made this old man feel great.

Since retirement, handling of traffic has been much fun for me. I especially enjoy taking traffic that no one else will handle. I find that there are certain areas of the state and certain cities that no one will take traffic for and it makes me feel great to be able to handle this.

I handle this traffic by way of GTE "Televisit." What few dollars this costs me is my pleasure and I am happy to be able to handle this.

I do wish to make one comment, however. Occasionally a piece of traffic will be offered a number of times over a period of time. As soon as I offer to take this traffic, someone else will break in and offer to take it. May I suggest that you do not wait until the traffic has been spoken for. I hope these fellows do not consider me "grabby" in a situation of this kind.

Again, many, many thanks for the certificate. I am very proud of it and, as I said before, it makes the old man feel great. Thanks to all of you.

Sincerely,

Ed Giese, W9UCL  
Rice Lake, WI

### DID YOU KNOW?

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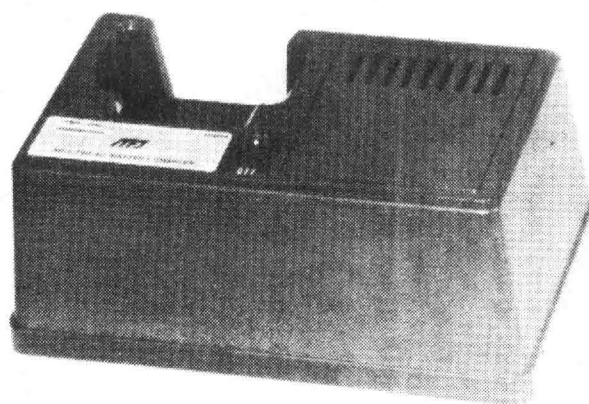
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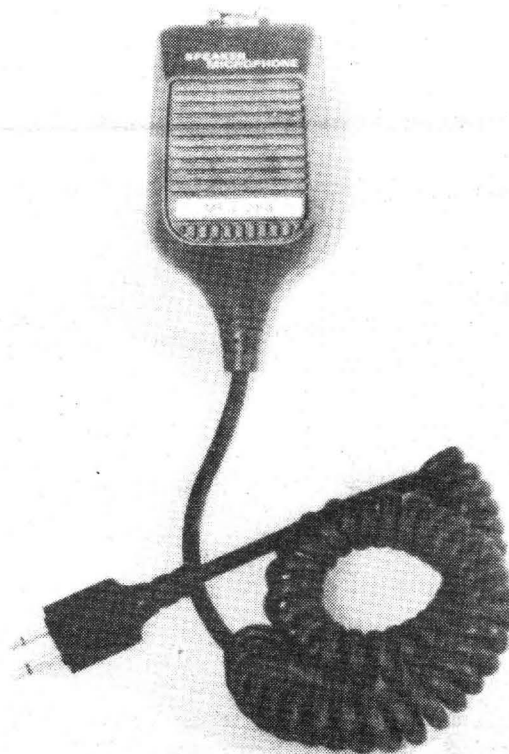
## New Products



### MFJ-290 DROP-IN RAPID DESK CHARGER

The MFJ-290 drop-in rapid desk charger works with all ICOM rechargeable battery packs (the IC-u2 series packs require the ICOM AD-10 charger adapter).

Made of high quality, high impact plastic, the charger measures 7 x 4 x 3 inches. The case has ventilation holes for cool operation. The charger has an on/off switch, power "on" and charging indicators and operates from 110 VAC. It has a one year unconditional warranty. The MFJ-290 retails for \$59.95, and is available from your dealer or direct from MFJ.



### MFJ-284 SPEAKER/MIKE FOR HANDHELDS

The MFJ-284 speaker/mike is supplied with a connector to fit both ICOM and Yaesu handheld radios. It has a lapel/pocket clip on its back. The cord is light weight and retractable. Its case is dark grey to match hand helds. It features unusually clean audio on both transmit and receive. It has a one year unconditional warranty. The MFJ-284 retails for \$24.95, and is available from your dealer or direct from MFJ.

For more information on these MFJ products, contact MFJ Enterprises, Inc., P.O. Box 484, Mississippi State, MS 39762, or call (800) 647-1800.

(From MFJ news releases)

## FCC DENIES PETITIONS FOR RECONSIDERATION

The FCC has acted on a number of Petitions for Reconsideration in Docket 87-161, the "Novice Enhancement" rule-making.

ARRL Headquarters has only received a brief news release, and not the actual document, but here are the highlights:

The FCC denied requests for additional frequency privileges for Novices on 220 MHz, stating that the subband 222.10 - 223.91 MHz was chosen because it conforms to the national voluntary band plan, and Novices have access to numerous repeaters on these frequencies. The Commission concluded that if Novice licensees want additional frequencies, they should upgrade to Technician class.

The Commission denied a request to permit Advanced class licensees to administer the written examination for the General class, saying that there was no shortage of Volunteer Examiners. Extra Class licensees have the greatest expertise in Amateur Radio, said the FCC in the news release, and therefore are the most qualified to administer examinations.

Lastly, the Commission denied a request to change the percentage of questions on each topic in the written Novice class examination. It reiterated that, if the percentage of questions for each topic does not result in a whole number, the administering volunteer examiners can round off the number.

The News Release also notes that the Commission has adopted certain minor editorial changes in Part 97. The ARRL Letter and the Happenings column in QST will carry full details as soon as the actual text of the document is available.

(From The ARRL Letter, published by the American Radio Relay League)

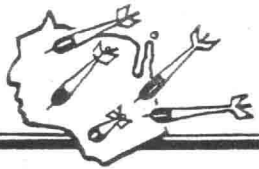
## ANSWERS TO NOVEMBER TRIVIA QUIZ

1. 2
2. Field effect transistor
3. Gamma
4. A.E.A.
5. 1345
6. April 10, 1988
7. 5N2
8. WB9JSW - Carl Plotz
9. 1937
10. 1936

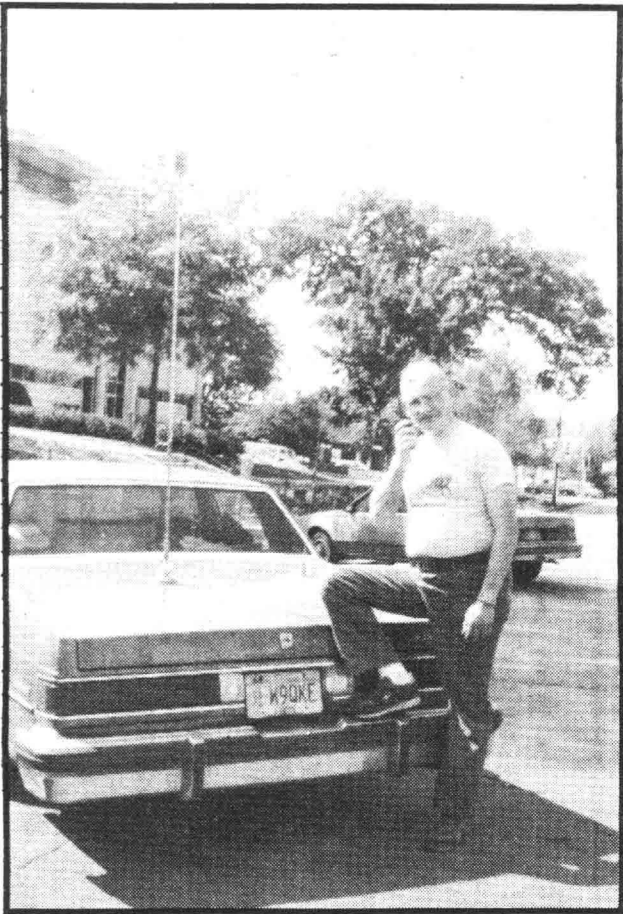
## ADVERTISERS NOTE

The November 1987 issue of Badger State Smoke Signals was mailed to more than 680 addressees. For advertising info, contact K9EHJ; please see page 2.

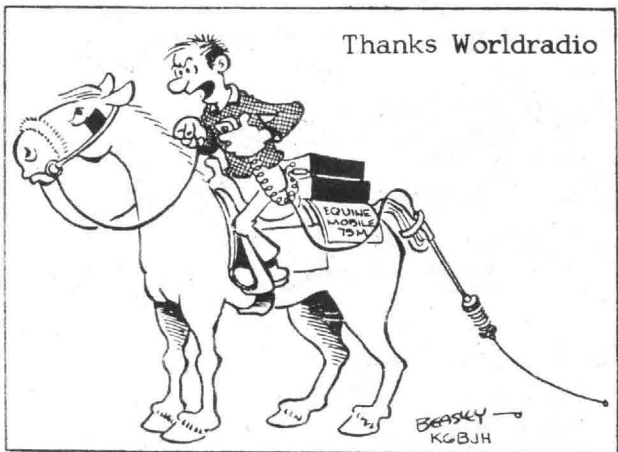




## HERE and THERE



Jordan Kaplan ("Kap"), W9QKE, hails from northern Illinois, but as an over-the-road salesman, he gets around.. sometimes even to Baraboo. Your editor grabbed this photo of Kap in September, when he took a short side trip from the Interstate for a visit here. He writes "Kap's Kolumn" for the York Radio Club's paper "Circuit Board," and we hope to bring you some of his keen observations over the next few months. Kap is also an electronics designer.



LIFT YOUR TAIL UP! HOW DO YOU EXPECT ME TO GET OUT IF YOU DON'T LIFT YOUR TAIL UP?

### LET ME FOREVER HONOR YOU

(continued from front page)

Rich started his speech: "Good morning. Since 1936 the Hiram Percy Maxim Memorial Award has been awarded annually in recognition of a young person's accomplishments and contributions in public service, technical development, operating, recruitment, public relations and other amateur related activities. Today we present this prestigious Maxim Award to Scott Young, N9FZS, from Colby, Wisconsin. From the many newspaper and newsletter articles that told of Scott's volunteer work, I quickly learned how Scott helped teach Novice classes, promoted Amateur Radio at schools and at public exhibit stations, recruited new amateurs, combined computers and 2 meters to operate packet radio - and still made good grades in High School."

I was nervously facing the audience now and thought of meeting Scott, hoping he would like me. Rich continued, "Scott plans to apply his \$1,000 cash award toward his college education. In fact, he just started attending the Milwaukee School of Engineering and is studying to obtain his degree in Electrical Engineering. You might have guessed, Scott has already discovered that the school has a ham radio club to help him continue his radio inter-

ests and to keep in touch with his family through his younger brother, KA9SMQ, and his father, KA9UXN."

The echo of Rich's voice throughout the big building paused, as Scott approached the stage. Rich resumed, "So for helping others in Amateur Radio, today we would like to honor you, Scott." Then Richard glanced at me and announced, "On behalf of the American Radio Relay League I would like to present this beautiful Hiram Percy Maxim award to its winner, Scott Young, N9FZS." I shined and sparkled as I was held up for all to see. Finally, there was Scott Young reaching for me amongst a thunderous round of applause. It was the happiest and most memorable moment of my life, and I think it was for Scott, too.

The next few weeks were exciting as Scott introduced me to his family, friends and classmates. He's doing very well in school, we're proud of each other and I've got a nice home. Slowly I realized that being a plaque is not hard work, I'm just a bit of wood and metal holding up a few cherished words. The credit for accomplishment is entirely due to Scott, who has carried forward those ideas crystallized long ago by Hiram Percy Maxim. So, my very special friend, let me shine and sparkle and forever honor you.... Congratulations, Scott.

### MAXIM AWARD PRESENTATION

Shown here, left to right, are ARRL Central Division Director Ed Metzger, W9PRN; Scott Young, N9FZS; and Wisconsin Section Manager Richard Regent, K9GDF. This photo was taken at the presentation of the Hiram Percy Maxim Award to Scott at the ARRL Central Division Convention in St. Charles, Illinois on November 1, 1987. The photo was taken by Phil (N9FXQ) and Sue (N9FWW) Fons. The cover photo courtesy of Rich Regent, K9GDF.



### 1988 QSO Party

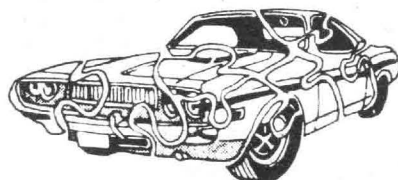
The 1988 Wisconsin QSO Party, sponsored by the West Allis Radio Amateur Club, will be held from 1800Z March 20 thru 0100Z March 21. Rules and an entry form will be sent to all 1987 participants during January; if you would like them sooner, send an

SASE to Wisconsin QSO Party, West Allis Radio Amateur Club, P.O. Box 1072, Milwaukee, WI 53201. The rules and entry form will also be published in an upcoming issue of Badger State Smoke Signals.

(Thanks WA9POV)

### THERE'S ROOM FOR YOUR AD HERE!

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## FCC Commissioner Mimi Dawson to Leave

President Reagan has nominated FCC Commissioner Mimi Dawson to be Deputy Secretary of Transportation. She is expected to be quickly confirmed by the Senate. The FCC is supposed to comprise five Commissioners, but it has been one short since Mark Fowler stepped down as Chairman last April. Dawson's impending departure would leave only three Commissioners.

While the FCC could conduct business with the three remaining Commis-

sioners, by law three votes are needed for final approval, so that one dissenting Commissioner could block Commission approval of any rulemaking.

Although no candidates have been nominated for the seats, various news services report that the FCC Chief of the Mass Media Bureau's Policy and Rules Division, Bradley Holmes, is the White House choice for the present vacancy.

(From The ARRL Letter)

## 220 MHz, Special Call Signs: Update

The Commission is now in the process of reading and digesting the many thousands of comments it received concerning 87-14, the FCC proposal to remove the bottom 2 MHz of the 220 band from the amateur service.

The ARRL continues to work with specialists in the field of congressional relations to identify and make use of every likely source of support on Capitol Hill, and many interested members continue to write or meet with their representatives explaining the amateur position.

Due to the sheer volume of comments, as well as the oncoming holiday season, FCC action on 87-14 is not expected until January or February at the earliest. This Docket could also be further delayed by Commissioner vacancies on the FCC. (See related item on this page.)

In 1985, the FCC proposed reallocating to the Land Mobile Services several unassigned UHF television channels in Docket 85-172. Recently, the Commission decided to temporarily refrain from any action in this Docket.

What is of interest to amateurs in the fight to retain 220-222 MHz is the concurring statement by Commissioner James Quello. He states: "I would agree to the expedited time table adopted in this proceeding if I were convinced that there was an urgent need for Land Mobile sharing at this time. However, as I have stated on numerous occasions, the Land Mobile community has failed to demonstrate a need for additional spectrum. Indeed, the Commission is currently evaluating comments on its own internal studies which cast doubt on the need for additional sharing. In my opinion, the issue of 'need', in and of itself, justifies a cautious approach to further Land Mobile sharing."

On the PRB-3 front, Forest Industries Telecommunications (FIT) has made an ex parte oral presentation before some of the staff of the Personal Radio Branch. FIT is one of the groups interested in becoming the Special Call Sign Coordinator (SCSC). Our readers may remember that FIT filed comments in 87-14, not only supporting the FCC's proposal, but suggesting it did not go far enough, and that another MHz should be taken as well!

It is interesting to note that in its presentation, FIT emphasized that "it was not involved in amateur politics" and that its position in 87-14 was "not relevant to PRB-3".

(From The ARRL Letter, published by the American Radio Relay League)

# 16TH ANNUAL MIDWINTER SWAPFEST

SATURDAY, JANUARY 9, 1988

8:00 AM — 3:30 PM

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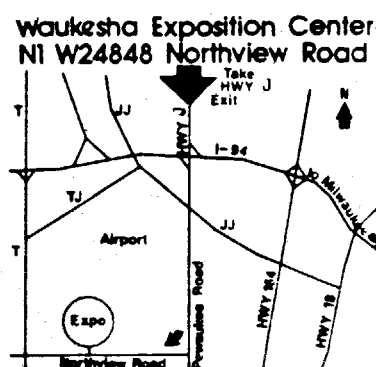
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**THAT'S THE SPIRIT!** - The Fox Cities Amateur Radio Club (Appleton area) asks its members to bring a can of food or a toy to its meetings, to be given to a local organization for Christmas distribution to the needy. Great idea! Might some clubs want to consider this for a year-around project?



## Eau Claire Amateur Radio Club

### NEXT MEETING

The next meeting of the Eau Claire Amateur Radio Club will be on Tuesday December 8 at 7:30 p.m. at the Parks and Rec. Building. Lunch Committee: Fred KC9NN, Joe N9GJU, and Phil KA9LJK.

### NOVEMBER MEETING SUMMARY

The meeting was called to order at 7:30 p.m. After introductions were made, Lloyd Fleig, President of the Indian Head Track Club, spoke briefly to the membership. He expressed his thanks for our club's help in the past and outlined plans for the Frigid 8 and Thermal 3 runs which will be held on December 5th. Carl W9NW will act as EARC's liaison in planning for this event.

The minutes were approved as read. The treasurer's report was approved as read.

### OLD BUSINESS

Bob W9BAR reported on the status of the 31/91 repeater. The TV station is under new ownership and prospects for continuing to use the tower for the 31/91 machine seem excellent. A tower crew will be working on the WEAU tower soon and would remove our installation for a cost of \$250 if we desired. If we chose to replace the feedline, that could be done for \$250. A generous donation of 1000 feet of feedline from Wisconsin CATV would help keep

costs to a minimum if we opted for replacing the feedline. After a brief discussion of alternatives available to us with regard to the 31/91 repeater, the following motion was passed: "Resolved: that W9BAR take such action as is needed to replace the feedline on the 31/91 repeater and be authorized to incur on the club's behalf such expenses as are required to do this."

Andy KA9HWN reported for the Trailer Modification Committee. Floor plans of the trailer as currently laid out and with proposed modifications were distributed and discussed. Extensive wiring with several surge-protected outlets will be needed, but the project as a whole should be much simpler than the drastic gutting and rebuilding originally anticipated. A committee to actually undertake modification of the trailer will presumably be appointed in the Spring.

Harry W9FYI reported that the Christmas party will again be held at the American Legion Hall on Water Street. The date will be Saturday December 5. The club will provide meat, rolls, coffee, and pop. Members are asked to bring a dish to pass and their own dishes and utensils. Liz N9EQR, Carl W9NW, Bob KA9OPS and Corrine KD9KL will serve as decorating committee. There will be a happy hour from 5 to 6 with dinner at 6. The club secretary will see that post card reminders of the Christmas party are sent to all members. A short program may be presented (a viewing of "The World of Amateur Radio" was suggested) but the evening will be mainly so-

cial in nature. Please note that elections will be held at the regular December meeting on Tuesday December 8. ELECTIONS WILL NOT BE HELD AT THE CHRISTMAS PARTY.

Carl W9NW reported for the nominating committee. The committee's nominations were as follows:

President - Jerry Marx NG9A

Vice President - Mike McCalister WD9DLM

Treasurer - Darold Patrow N9FLK

Secretary - no nominee

There were no nominations from the floor. The nominating committee will continue to seek qualified and willing candidates - hopefully two for each office - and nominations will be accepted from the floor on election night.

### ANNOUNCEMENTS

Don K9UXP reported that the auto-patch on the 84/24 repeater will be back on line soon. Carl W9NW is still looking for people interested in a Novice class. Several For Sale items are posted.

1988 DUES SHOULD BE PAID BEFORE DEC. 31.

The meeting was adjourned at 8:35 p.m.

Respectfully submitted:

Robin NI9R --- Sec. EARC

### RADIO SHACK OPENS ITS DOORS TO LOCAL CLUBS

The October 1987 issue of *Merchandising Newsletter*, sent by Radio Shack to its retail stores, calls attention to the new Novice instruction package being carried in Radio Shack stores and catalogs and asks store managers to cooperate with local amateur radio clubs. The items ends with: "And, if you are contacted by local amateur radio clubs, let them leave a phone number and/or some of their literature (about meetings, for example)."

This would be a good time for clubs to get in touch with the Radio Shack stores in their areas, just in time for the heavy store traffic of the holiday season!

(From The ARRL Letter)

**ARRL SEEKS DXCC DESK ASSISTANT MANAGER:** The DXCC Desk is looking for an Assistant Manager. This full-time HQ staff position processes DXCC applications. A General class or higher license is required. Of course, interest in DXing and DX call signs is helpful. Beginning salary range is from \$12,220 - 13,442. For further information, contact Don Search, W3AZD, at HQ (225 Main Street, Newington CT 06111.) (From The ARRL Letter)

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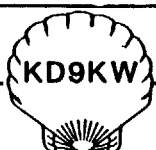
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## FLARC Observes 50 Years with ARRL



The Four Lakes Amateur Radio Club of Madison became affiliated with the American Radio Relay League in 1937. The 50th anniversary of FLARC's ARRL affiliation was observed recently with the presentation to FLARC of a 50 year certificate by Wisconsin Section Manager Richard Regent, K9GDF, at right. Receiving the certificate is FLARC President Ken Trachte, N9ADN, at left. Thanks to Les Peterson, W9YCV, for the photo.

## Joe Fairclough, WB2JKJ, and The Crew at 22

When Joe Fairclough, WB2JKJ, found that his students in New York City Junior High School 22 were reluctant to learn English and spelling when taught in the conventional way, he decided to try a different method. Those subjects are now taught using Morse code and amateur radio.

Joe introduces his 7th and 8th grade students to the International Morse Code at the beginning of the school term. The students then study their grammar and spelling by using cw. The class uses several suitable amateur radio publications as textbooks, including QST, CQ, 73, and others.

Of course, learning the code exposes the students to amateur radio. His station in the school provides his students opportunity to talk to other amateurs in diverse areas, which promotes the kids' interest in geography. After a contact, the students help fill out QSL cards; sometimes, they correspond with the amateurs they have contacted.

Joe's program has been recognized by President Ronald Reagan, and is featured in the new amateur radio promotional video, "The New World of Amateur Radio."

According to Joe, "We are totally self-supporting. All of our equipment was purchased from the fund-raising efforts of the students and myself. Even down to the postage, it's all done by the kids. It's very difficult to survive this way, but it makes for a great spirit of everyone pulling together. And besides, hams are great people. Without them, this wouldn't be possible."

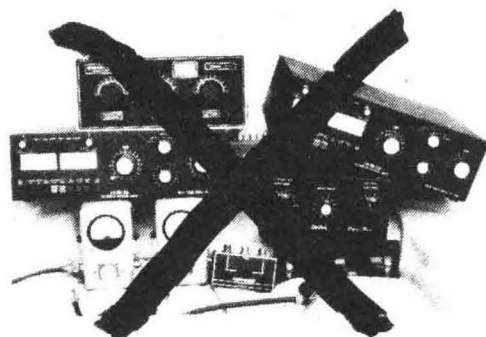
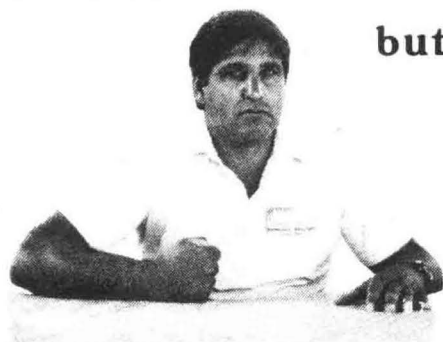
Through Joe's use of code and amateur radio, the students benefit by increased interest in and heightened willingness to learn English, spelling, grammar, and geography. And, they are exposed to amateur radio and its technology. Joe has used his hobby to increase his students' interest in subjects which many kids today find dull and some even consider unnecessary. The students can clearly see, in real time, why these subjects (skills, actually) are so important if they are to be functional in society.

WB2JKJ and The Crew at 22 can be found on The Classroom Net, which meets at 1200 UTC daily on 7.238 MHz, from 1400 - 1600 UTC on 7110 or 7040, and from 1600 - 2100 UTC on 21.395 or 21.110.

If you'd like more information, drop a note to Joe Fairclough, Junior High School 22 ARC, 111 Columbia Street, New York, NY 10002.

(Thanks to Edward Pfeifer, KA9WSK, Tomah WI, for the above information.)

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## "200" Call Sign Update

In our last issue (of The ARRL Letter), we reported on the ARRL filing with the FCC of a list of 200 clubs who registered to participate in the US Constitution Bicentennial by using special "200" call sign prefixes. Clubs in state capitals were pre-approved. FCC action as to the 170 clubs not located in state capitals is expected momentarily.

No club in the following five states has sent a registration form for the special "200" call sign: Alabama, Kentucky, South Carolina, Utah and West Virginia. However, ARRL has requested FCC permission for an addendum list, so it's still possible for clubs from these five states to become involved in the celebration.

Over 500 "We The People" WAS award applications have already been received at ARRL HQ, and certificates for the first 100 applicants have now been mailed.

(From The ARRL Letter)



# Wisconsin Nets Association Ltd.

## WISCONSIN NETS

NET	WNA	FREQ	UTC	CST	MANAGER
BWN	YES	3984	1200Z	0600	WD9IID
BEN	YES	3985	1810Z	1200	KA9RII
WSBN	YES	3985	2330Z	1730	WB9ESM
WNN	YES	3723	0000Z	1800	N9DGL
WSSN	YES	3645	0030Z	1830	N9BDL
WIN-E	YES	3662	0100Z	1900	WB9ICH
WIN-L	YES	3662	0400Z	2200	KC9CJ
NWTN	YES	34/94	0030Z	1830	W9ZZM
WCWTN	YES	31/91	0030Z	1830	NK9L
GR.BAY	NO	72/12	0245Z	2045	WB9NRK
			THU	WED	

RACES NO 3993.5 1815Z 1215 WC9AAG  
USB TUE. & THUR.

RACES NO 3993.5 1400Z 0800 WA90AY  
LSB SUN.

## Section Manager's notes



Richard R. Regent, K9GDF  
5003 South 26th Street  
Milwaukee WI 53221

Do you need help with an antenna tower ordinance problem? Ask our State Government Liaison, AG9V, John Ackermann, for guidelines and materials. John also is inviting top operators to his station for upcoming DX contests.

Don't forget the VHF Sweepstakes January 23rd through 25th with special club competition rules.

The Novice Roundup begins the end of January; help Novices in your town to get on the air and have some fun.

If you're a hot contester, get in touch with W9XT or K1TMM of the Society of Midwest Contesters.

Congratulations to new Official Observer W9KLN.

New officers Mancorad: Pres. N9GHE; V. Pres. WB9ESM; Treas. WD9JKZ; and Sec. N9FVZ.

W9PRN, Central Division Director, tells me I have been appointed to the Emergency Communications Advisory Committee. Thanks, Ed.

Badger Examiners January 9th exam, 1 p.m. at St. Nicholas Parish in Milwaukee, reservations with KB9G.

West Allis RAC Midwinter Swapfest January 9th at Waukesha County Exposition Center Forum, Highways J and FI, with Amateur Exams available, see you at the ARRL booth.

January 23rd, Four Lakes Annual Banquet at Minnick's Top Hat starts at 5:30 p.m. and features Fundamentally Sound Barber Shop Quartet.

Congratulations to Watertown ARC on becoming ARRL affiliated.

WB9SMM of Milwaukee would like to get timely weather data from Northern Wisconsin packet radio hams during severe weather emergencies. Anyone got some suggestions?

Sorry to report Silent Key W9WYF who was a Charter/Life member of the West Allis RAC.

Please let me know the dates for your group's or club's swapfests, picnics, dinners and special events planned for 1988. I'll promote them in this column, in various newsletters, and will attend them if possible.

Best wishes in the new year.

CAND REPORT FOR OCTOBER 1987 X 697 MESSAGES  
IN 31 SESSIONS X D9RN REPRESENTED 100 PERCENT X  
WISCONSIN STATIONS KA9RII AND N9BGE X 73 - BILL  
WB5YDD ASST MGR CAND.

## WEST CENTRAL WISCONSIN TRAFFIC NET (WCWTN)

Ruth Girard, NK9L

Net Manager

Route 1 Box 168-B2

Jim Falls, WI 54748

Here are the stats for the WCWTN from  
February 1987 through October 1987:

MONTH	QNI	Offered	Cleared	Time
February	347	6	3	221
March	451	15	13	313
April	410	12	11	277
May	466	29	27	318
June	414	18	17	264
July	493	18	18	289
August	409	30	23	279
September	395	37	37	291
October	348	21	20	253

73, Ruth, NK9L

## UNIVERSAL TRAFFIC QUERIES

If you have read the previous three traffic training articles, you now have a good background as to the makeup of the National Traffic System and how it functions at various levels.

## HOW CAN I BECOME A MEMBER OF ONE OF THESE NETS?

Participation in NTS nets is recognized by the issuance of a certificate attesting to the recipient's regular participation in an NTS net at whatever level suits him after meeting initial requirements for membership in a particular net.

In the Wisconsin Section, requirements for membership in LOCAL and SECTION nets are as follows:

1. Be a permanent resident of the Wisconsin Section.\*
2. Participate in 30 of 90 sessions of a given net.
3. Contact the Net Manager of that net and inform him/her that you have met the requirements.
4. The Net Manager will then contact the Section Traffic Manager and inform him/her that a net membership certificate can be issued.

\* An associate membership is available to those stations who are active in Wisconsin nets but do not reside in Wisconsin.

That's all there is to it.

NTS nets at LOCAL and SECTION levels are open to ALL amateurs in the coverage area of these nets. At REGION and AREA levels, participation is normally restricted to designated liaison stations from SECTIONS within the Region.

## WHO RUNS THE NETS?

As you already know, a traffic net is a group of amateur operators gathered on a spot frequency for the purpose of exchanging third-party traffic on an organized basis. For each net session there is a NET CONTROL STATION, who is a sort of master of ceremonies, and one or more representatives designated to take messages destined for points out of the nets normal coverage area, or to bring traffic in from outside the nets area that is destined for points the net normally covers. Other stations in the net are either at random or representing a particular city or town or other designated part of the nets coverage area.

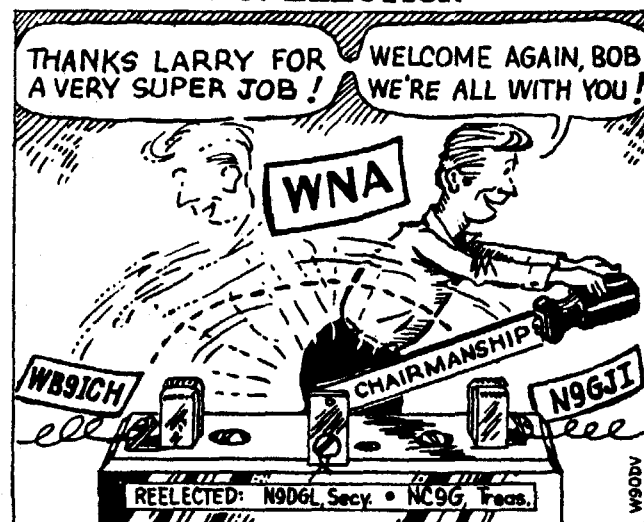
The NET CONTROL STATION (NCS) has the function of directing the flow of message traffic among members of the net. Usually, this is his sole function and usually it is more than enough to keep him busy. During the time the net is in directed session, the station designated net control for that session is the boss. His directions are to be complied with immediately and without question if they are understood.

Most traffic nets meet on a daily basis at a fixed time on a designated frequency. They start with a "call-up" by the NCS, using a pre-designated abbreviation on CW or RTTY or the name of the net on phone. The net control is usually not the same station every session, allowing more operators to accumulate experience in net controlling. Net management policy is to pass the NCS duty among regular personnel, as soon as any operator has accumulated enough net savvy and knowhow to qualify for this duty.

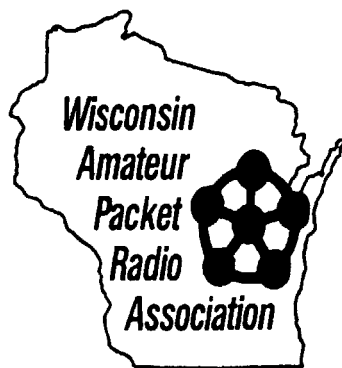
## WHAT IS A NET MANAGER?

In ARRL nets, the net manager is appointed by the SECTION MANAGER on recommendation of the SECTION TRAFFIC MANAGER. In case of high-level NTS nets (Region, Area) the appointment is made by the office of the ARRL communications manager. In any case, the manager is the operator who designates net control stations for the various sessions of the net and also designates "liaison" continued on page 4

## 1987 ELECTION







# THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPR)

P.O. Box 436 Cedarburg, Wisconsin 53012-0436

RiverLAN Hams Fund New Digipeater on 145.09.....

After only three weeks, the RiverLAN packet group has successfully concluded a campaign to fund establishing a local digipeater on 145.09 Mhz to serve the La Crosse, WI/Winona, MN area LAN. This was a project decided upon at the recent RiverLAN Packet Conference with a funding goal of \$260. Prior to the conference, Van WA9FIO had obtained a Motorola transceiver which is to be used in the project and had worked with it sufficiently to enable it to operate at the 145.09 Mhz range. Funding, however, was needed for the antenna, TNC, power supply and miscellaneous equipment.

At the October Packet Conference a decision was made to request all local Packet operators to contribute \$13 or more to the project. The result was an enthusiastic response by local hams who supported the new digipeater with words of encouragement as well as contributions. One of the local hams stated that this was the first time he had ever seen hams pull together for a project with such intensity. He thought this spoke well for the "packet community" in general and the RiverLAN group in particular.

The RiverLAN group is scheduled to develop into a formal organization to be approved at the spring conference in April of 1988. It's three past semi-annual conferences have attracted packet operators from throughout Wisconsin and Minnesota.

Kent - W9LZQ

News Bulletin From Wife Of Sysop.....

The wife of Bob - N9BKJ was greatly concerned over an odor coming from her husband's radio shack, noticing many flies circling the area around the entrance to shack and a trail of empty 807 bottles in hallway. Upon opening door she found her husband motionless, staring at a monitor, occasionally uttering incomprehensible sounds, unshaven, sitting in his underwear, hair standing on end and heavy dark circles under his eyes.

Medical authorities were called immediately. Upon a survey of her husband's malady, determination by paramedics found that the her husband was suffering from a rare form of condition called BBS SYNDROME, and that it was beyond the scope of local medical facilities to deal it. An immediate recommendation was made to call in a specialist from the ARRL, familiar with BBS SYNDROME, known to strike sysops without warning.

Bob's wife is happy to report that her husband is undergoing saturated RF treatments to return husband to normal health. ARRL advises strongly that all SYSOPS be cautioned with regard to BBS SYNDROME that can strike without warning, leaving you in a vegetable-like state. No more than 2 hours a day are recommended for sysop

activities. Updates on the condition of N9BKJ will be announced as they become available.

de XYL

(The BBS Medical Research Institute has recently released a paper on BBS Syndrome and has developed a simple device that will counter BBS Syndrome in it's early stages. The device uses readily available components and utilizes the TNC's Check parameter function and an electric cattle prod.....ED.).

10 Meter FM 1200 Baud Packet Freqs.....

I have been working, with good results, JAs, ZLs, and VKs on 10 meter FM packet at 1200 baud. The freqs to monitor or use are as follows: 29.010, 29.030, 29.050, 29.070 and 29.090 Mhz.

Tom - WB7ASR in Phoenix Arizona

TAPR TNC-2 1.1.5 32K.....

Howie has uploaded version 1.1.5 for the 32K TNC-2 to me and I forwarded this to Chris at the TAPR office on November 7. When Chris informs me that she has the EPROM, I will make announcements on Compuserve and the NET as to how folks may upgrade. Lyle is away so we have to make arrangements to fill in for everything that he usually does (which is quite a bit) ...

Dave - VE3GYQ

PK-232 FAX Info Needed.....

Are you or anyone you know running FAX from the AEA PK-232 thru an IBM (or compatible) system? I am having a devil of a time getting the FAX system to run - Fax signal in and no output to the printer. The set-up consists of a Tandy 1000 (IBM compatible), DMP 130A printer, PC Packrat terminal program from AEA and the PK-232. The HF rig is a Yaesu FT-767. Perhaps the AEA furnished interface cable is bad? All other modes function properly - just having the problem with the FAX. Hints, Ideas, Suggestions, Encouragements, Rumors, Modifications, Recommendations???? All input is appreciated. Please leave your two cents worth on the following BBSs... N9BKJ (Waupaca).. and thanks for your help.

Harry - N9GDY

Role Change At N9BKJ.....

I was contacted by John (AG9V) about a week ago, and he advised me that he was going to be gearing down his bbs for the pursuit of other interests in the packet radio area. His bbs will still be there, but in a more limited fashion. I agreed with Dan (WB9TYT) in Milwaukee, and John (AG9V) that I would accept taking over the bulk of traffic here and handle forwards as well.

The transition will be taking place over a

period of time and John (AG9V) will make an announcement with regard to his bbs when he feels the moment is right. As it now stands, WB9TYT has started to slowly increase the forwards here with more and more coming each day. John (AG9V) will be helping me out with forwarding data of his to make the transition as smooth as possible.

Due to the increased load of traffic coming in at this bbs, I will be aging out normal files on a 5 day basis to make room for the new. This does not apply to mail forwards or bulletins and such that are destined for other BBS's. As soon as the forward occurs, they will then be aged out. Users who have interest in files that will be affected by the aging process should so to speak, "GET'EM WHILE THEY'RE HOT".

Thats a brief note on the changes here, I will keep all users informed of events with regard to this matter as they take place.

Bob - N9BKJ

PACLEN, MAXFRAME, SENDPAC Tailoring.....

You are sitting at your keyboard typing to a friend in a QSO. You notice your radio transmitting occasionally. There seems to be a pattern to when it transmits. What is it? Well, packet radio uses FRAMES. A FRAME is a block of data that has all the necessary stuff about who is sending it and who it is intended for along with a number that allows a check to see if there has been any error in transmission. It is the minimum unit used in packet radio. Whenever you make a transmission, it will have at least one FRAME in it. Each transmission, no matter what the length or number of FRAMES, is called a PACKET.

So, when does the TNC know it is time to send a FRAME? There is a parameter called PACLEN that sets how big a FRAME can be, up to a limit of 256 byte (normally one character uses one byte). So as you type to your friend, you should be able to type the PACLEN number of characters before a transmission occurs. You can set PACLEN way up to 200 or so as a test and start typing. Wait a minute! You only typed one line of 80 characters or so, hit the carriage return key and your transmit light came on? What gives? You used a character that forced a transmission called the SENDPAC character. The default SENDPAC character is a carriage return so when you hit this key, the packet was sent. So, you sent less than a FRAME, how can that be? Well, you sent a FRAME, but it wasn't as large as it could have been. You can send a FRAME that only has one typed character. Type a letter and hit carriage return and you have sent a very short FRAME. PACLEN sets the upper limit of characters, but, you determine a shortened length when you hit the carriage return.

So far, so good. What about the MAXFRAME parameter? Suppose you are typing as before, but, the frequency is very busy, so busy that your TNC



is held off from transmitting long enough for you to type several lines to your friend. Each time you hit the carriage return you build a new FRAME. Since you aren't able to transmit, you continue to add another FRAME with each line or carriage return. Finally, there is an opening on the frequency and you transmit. How many FRAMES that are pending will be sent at once? You will send up to the number set in the MAXFRAME parameter. Say you have built up 4 FRAMES and you have MAXFRAME set to 2. You will then transmit twice sending 2 FRAMES on each transmission.

MAXFRAME can be set as high as 7. Why not just put it at 7, then, and be done with it? You could send all four FRAMES you had built up at once instead of having to make two transmissions. The problem is that the longer you transmit, the greater the chance that noise or another station transmitting will cause a receiving error at your friend's INC. Therefore, a few short transmissions have a much better chance of getting through than one very long one (Sort of like getting a group of people thru a revolving door.).

Right now the protocol of our INC's does not allow selective repeats of FRAMES, it only allows acknowledgement of the last sequential FRAME successfully received. In simple language, if you send your friend a PACKET of 5 FRAMES and he misses the first but gets the last 4, there is no way for your INC to request just FRAME 1 again and not the last 4. All 5 must be sent again because the first one was missed. One lost bit can cause thousands of bytes to be retransmitted if you are pushing PACLEN and MAXFRAME to the limit!

What should you do? Should PACLEN be set low and MAXFRAME high or the other way around? Should they both be set low? For normal operation, with other stations competing for the frequency, it is best to set MAXFRAME at 1 and PACLEN at 80. This way, you will never be sending a PACKET of more than one FRAME of 80 characters at once. You can lower your PACKET length if you are having trouble getting through to your destination by simply typing shorter lines (with the carriage return SENDPAC character) creating shorter FRAMES.

Here is an example, on 145.01 in the Chicago area, during prime time, I may have trouble getting an entire 80 character line through in a QSO, so I drop my FRAME length by typing lines like this...

Ok, Bob, I know  
what you mean about that  
BBS being slow but  
I guess we will have  
to live with it.

Sure it is a little choppy to look at but you will be amazed at how rapidly your PACKETS are acknowledged, especially if your friend is also sending short lines. I have even gone down to one word lines when I have all but lost a contact to ask for a QSY...

Bob  
go  
to  
.03

Looks ridiculous, but, it sure beats re-trying out. Those one word PACKETS will usually punch through even when the frequency sounds like a continuous buzz of PACKETS. You end up with Bob on .03 instead of wondering what happened to him as you get a disconnect.

Ok, why not set PACLEN down low and adjust the number of MAXFRAME to control PACKET length?

The main reason to keep the FRAME count down is because each FRAME contains all that address info, the checksum, control byte, etc. Why not use those bytes for your conversation instead of repeating known data again and again. You have less overhead with a single long FRAME in one packet than with several short FRAMES in one packet. In addition, it's just plain easier to let the carriage return decide PACKET length than to be playing with MAXFRAME.

Is there ever a time to send long multiple FRAMES? If you are on a very quiet frequency and are sending a file direct (not through a digi) to a station that gets a strong signal from you. Under these conditions, you can really pick up the speed of file transfer by running up PACLEN and maybe bumping MAXFRAME to 2 but be ready to back off if activity picks up.

73, Clif - WA7MAD

-----  
A Reason To NTS Packet Format.....

Some of you might wonder why we use a formatted message when sending NTS traffic on packet radio. Since messages travel so easily on packet, and come thru without errors...then what is the reason for the divisions into preamble, address, text, etc. Those of you who only work packet could easily question this routine.

If messages traveled solely by packet, we would not need any limitations or regulations, and one could send a message of many words, paragraphs, etc. However, we have not yet reached that stage, and somewhere along the line, a packet message might be picked up by a traffic handler who then must transfer the message to a CW traffic net. When using CW, we need some system of checks and balances..and we also must have some limitation on length of the total message, as CW is taxing on the ears and brain, and if the message is too long, errors will take over. Therefore, it is wise to limit your NTS traffic message to between 25 or 30 words at the most. Think of it as a telegram, with certain restrictions in length. True...perhaps we could eliminate the "Check" count in the preamble, but CW operators like to have this so they can count up the words they received to be sure they did not miss anything from the text. I trust you will understand.

Your comments are invited.

73, KJ9L

-----  
HF KAM Info.....

After owning a Kantronics KAM TNC for about 10 months, I was still experiencing problems with the TNC after it had connected to a HF station. The TNC would connect to another station well enough, but, after a few packets, the KAM would not transmit any more packets or receive acknowledgements back from the receiving station.

I think I have found a good set of parameters for the TNC which seem to have overcome this problem. These values now are in use here with great success even though they might not be according to the book..HI!

AX = ON            RESP = 0/5  
FRACK = 3/3        CH = 30/30  
DW = 0/10          AXD = 50  
TXD = 8/15

Also a change in the mark and space tones is of help, I use the following:

Mark = 2110        Space = 2310

This is the same tone set in use with the PK-232.

It is important to set the AXD to 50 because of the extreme decrease in the TXD time. This has improved the performance of the KAM greatly on HF. I have found that HF packets flow thru with ease and that I no longer have the problem of re-trying out after 3 or 4 packets are sent. An increase in the TXD time above 8 has resulted in the problem reoccurring again. It appears the parms only help the KAM in the HF mode of operation.

Any comments?

"Simmy" - WA8YJE in Whitehall, MI

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WISCONSIN AREA TELEPRINTER SOCIETY, INC. (WATS)

WATS was organized in 1965 for the purpose of promoting RTTY activity. The major activity was the distribution of surplus teleprinters from Western Union. The Society was incorporated in the State of Wisconsin in 1970. There has been no equipment released by Western Union since the early 1970s. The monies in the treasury, came from the dues (\$2.00) of members at that time. While the Society was active there were about 30 teleprinters released to Wisconsin Amateurs. There has been no activity since that time, and the officers and directors retained their offices in the absence of new elections.

Recently I polled the officers and directors. They were in agreement that the Society should be dissolved. In the matter of disposal of the treasury, consideration was given to giving the funds to the ARRL, The ARRL Foundation, AMSAT, The Red Cross, or The Wisconsin Amateur Packet Radio Association (WAPR). The majority preferred WAPR, as that organization most closely matched the purpose of WATS. There were reservations, as at that time, WAPR did not have written by-laws, nor were there provisions for disposal of its funds in the event of WAPR dissolution. These objections were met earlier this year with the adoption of written by-laws with such a provision, and the election of new officers and directors.

Therefore, receiving no objection from the other officers and directors, I notified the Secretary/Treasurer, Don Evenson, K9JYX, to close all accounts, pay any final bills, notify the Secretary of State that WATS has been dissolved, and to obtain a check payable to WAPR. The check, for \$313.63, has been delivered to the Treasurer of WAPR.

I am attempting to see that the former members of WATS receive this issue of Smoke Signals. To those of you who may have been wondering what happened to WATS, I thank you for your patience, and to all of you I thank you for your support. I am sure you all join me and the other officers and directors in wishing the best to WAPR, and I am sure they will put the funds to good use.

73, Ken Ebner, K9EN, (past) President WATS

-----  
FREE WANT ADS in BS55. Send your ad to Kenneth A. Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. (Some restrictions apply.)

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# Unusual Trivia Quiz



By Gene Santoski, K9UTQ  
1220 18th Street South  
Wisconsin Rapids WI 54494

- QUIZ NO. 11 IN A SERIES OF 12
1. What is the 5th part of a message preamble?
  2. What is the approximate great circle bearing of East Malaysia (9M6) from Wisconsin?
  3. What do the letters "HAAT" in antenna articles represent?
  4. What is the alphanumeric designator of the common male coaxial connector?
  5. What Tennessee firm manufactures amateur radio gear?
  6. What is the output frequency of the Rice Lake repeater?
  7. What are the band edges of the 1200 MHz band?
  8. Who sponsors the USA-CA (counties) award?

9. What are King Hussein's call letters?
10. What Waseca, MN-based firm made the "Viking" transmitters?

Submit your answers to K9UTQ. Next month's quiz will be the final one, and a copy of the new ARRL Operating Manual, worth \$15.00 will be awarded to whomever has submitted the most correct answers. Answers to last month's quiz are on p. 8.

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